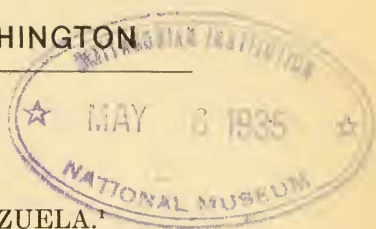


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON



THE GENUS *BESLERIA* IN VENEZUELA.¹

BY C. V. MORTON.

Three new species of *Besleria* (Gesneriaceae) have been detected among the large Venezuelan collections of Mr. H. Pittier. In order to relate them satisfactorily to those previously known the following key has been prepared. I have had the privilege of examining Venezuelan material of this genus from the following herbaria: Botanical Museum of Copenhagen, Gray Herbarium of Harvard University, Royal Botanic Gardens, Kew, Academy of Natural Sciences, Philadelphia, New York Botanical Garden, and the U. S. National Herbarium.²

KEY TO SPECIES.

Corolla spurred at base. Corolla yellow.

Calyx segments glabrous except at base; corolla about 20 mm. long;
calyx 4 mm. long or less.....1. *B. pendula*

Calyx segments strigillose throughout; corolla about 30 mm. long;
calyx 6-7 mm. long.....2. *B. penduliflora*

Corolla not spurred at base.

Flowers aggregate in the leaf axils.

Stems and leaves hirsute; calyx lobes more than half as long as
the corolla, linear-lanceolate, about 14 mm. long; corolla
white.....3. *B. disgrega*

Stems and leaves appressed-pubescent or glabrate; calyx lobes
less than half as long as the corolla, ovate, rounded or obtuse,
4 mm. long or less; corolla red.....4. *B. acutifolia*

Flowers borne on a common peduncle, disposed in corymbs or umbels.

Calyx lobes strigillose throughout, acute, scarcely mucronate;
corolla yellow, membranous, 8-9 mm. long. Secondary
nerves of the leaves 6 or 7.....5. *B. clivorum*

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² In the following treatment these institutions are represented by the following abbreviations: Co, G, K, P, Y, and W, respectively.

Calyx lobes glabrate, rounded at apex; corolla yellow, red, brown, or orange, membranous or fleshy, 12–22 mm. long.

Calyx lobes rounded, not mucronate; corolla orange or brown, fleshy, the lobes reflexed, glandular within.....

6. *B. Rhytidophyllum*

Calyx lobes mucronate; corolla yellow, red, or orange, membranous, the lobes neither reflexed nor glandular within.

Leaf blades ovate or oblong, rounded at base; secondary veins 11 or more.....7. *B. affinis*

Leaf blades lanceolate, oblanceolate, or narrowly elliptic, attenuate at base; secondary veins 6 or 7.....8. *B. mucronata*

1. *Besleria pendula* Hanst. *Linnaea* 34 : 333. 1865.

I have examined a specimen of the type collection in the Gray Herbarium (Moritz 1135, collected at Mérida, Venezuela). The species is also known from Colombia.

Additional Venezuelan specimens examined:

TRUJILLO: Lagunetas, between Trujillo and San Lazaro, alt. 1500 meters, *Jahn* 101 (W).

2. *Besleria penduliflora* Fritsch, *Repert. Sp. Nov. Fedde* 18 : 9. 1922.

This species was collected on Roraima, alt. 1600 meters, by Ule (no. 8751). I have seen no specimens. According to Fritsch it is near *B. pendula* Hanst.

3. *Besleria disgrega* Morton, sp. nov.

Subg. *Pseudobesleria*. Frutex 0.5–1.5 m. altus, vix ramosus; caules teretes, dense hirsuti; lamina foliorum ovata vel elliptica, maxima ca. 19 cm. longa et 8.5 cm. lata, apice breviter acuminata, basi cuneata, denticulata, ciliata, supra hirsuta, subtus imprimis in venis hirsuta, nervis secundariis 7–9; petiolus crassus, usque ad 6 cm. longus, hirsutus; pedunculus communis nullus; pedicelli in axillis foliorum dense aggregati, ca. 7 mm. longi, hirsuti; lobi calycis flavi, liberi, integri, lineari-lanceolati, ca. 14 mm. longi, carinati, acuminati, utrinque hirsuti; corolla alba, tubulosa, erecta, ecalcarata, 15–18 mm. longa, vix ventricosa, extus puberulenta vel glabrescens, intus glabra, fauce parce glandulosa, lobis erectis, rotundatis, ciliolatis; filamenta glabra; antherae connatae; ovarium conicum, glabrum; stylus glaber; stigma bilobum; discus annularis, integer, glaber; fructus deest.

Type in the U. S. National Herbarium, no. 1,232,700, collected at El Portachuelo, on the road between Maracay and Ocumaré, Aragua, Venezuela, at 1100 meters altitude, May 8, 1925, by H. Pittier (no. 11810). Duplicate at the New York Botanical Garden.

Additional Venezuelan specimens examined:

FEDERAL DISTRICT: Hacienda Puerto La Cruz, *Jahn* 1324 (W); *Pittier* 8085 (W).

ARAGUA: Alto de Rancho Grande, *Pittier* 12151 (W, Y); El Portachuelo, *Pittier* 11367 (W); near Colonia Tovar, *Fendler* 2030 (K).

Besleria disgrega does not belong to the same section as any other of the Venezuelan species of *Besleria*. Possibly it is to be compared with *B.*

columnneoides Hanst., of Costa Rica, but that species must be very different by reason of its toothed calyx lobes and hairy corolla and ovaries.

4. *Besleria acutifolia* Benth. Plant. Hartw. 237. 1846.

This Colombian species was reported from Venezuela by Hanstein on the basis of *Moritz* 1491, from Mérida, but I have seen no specimens.

5. *Besleria clivorum* Morton, sp. nov.

Subg. *Parabesleria*. Frutex 1 m. altus; caules teretes, graciles, dense sericeo-strigillosi; lamina foliorum elliptica, maxima ca. 10.5 cm. longa et 4 cm. lata, integra, apice breviter acuminata, basi cuneata, supra parce strigillosa mox glabrescens, subtus strigillosa, pallidior, nervis secundariis 6 vel 7; petiolus usque ad 3 cm. longus, dense sericeo-strigillosus; inflorescentia corymbosa, pedunculis communibus gracilibus, usque ad 4 cm. longis, strigillosis, pedicellis usque ad 2 cm. longis, apice paullulum incrassatis; lobi calycis basi parum connati, ovati, ca. 4.5 mm. longi, imbricati, strigillosi, apice vix mucronati, margine ciliolati; corolla lutea, ealcarata, tubo cylindrico, non ventricoso, 8–9 mm. longo, 3.5 mm. lato, extus glabro, intus glanduloso (annulo piloso nullo), lobis ca. 3 mm. longis, rotundatis, patentibus, eciliatis, extus glabris, intus fauce glandulosis; filamenta libera, glabra; staminodium bene evolutum; antherae connatae, loculis confluentibus; ovarium glabrum; stylus glaber; stigma bilobum; discus annularis, grosse lobatus, glaber; bacca tuberculata, ca. 8.5 mm. diametro.

Type in the U. S. National Herbarium, no. 1,281,986, collected in the forests of Valle en El Medio, Chuao, Aragua, Venezuela, at 600 meters altitude, March 15, 1926, by H. Pittier (no. 12128). Duplicate at the New York Botanical Garden.

Additional Venezuelan specimens examined:

Between Carrizal and San Diego, 1400 meters alt., *Pittier* 12982 (W, Y). Near Colonia Tovar, Aragua, *Fendler* 2029 (K).

This species may be related to *B. Rhytidophyllum* Hanst., which similarly has the corolla tube glandular within. The leaves of the latter, however, tend to be larger and oblanceolate, rather than elliptic, the calyx lobes are larger, glabrate, and more rounded, and the corolla is broader, fleshier, and orange or brownish in color, rather than yellow as in *B. clivorum*.

6. *Besleria Rhytidophyllum* Hanst. *Linnaea* 34: 332. 1865.

The type of this species was collected near Colonia Tovar by *Moritz* (no. 869). I have seen the following collections:

ARAGUA: Colonia Tovar, alt. 1800–1950 meters, *Fendler* 788 (G, P, Y).

Inasmuch as the calyx lobes are united almost to the middle, this species should probably be referred to the subgenus *Eubesleria*.

7. *Besleria affinis* Morton, sp. nov.

Subg. *Parabesleria*. Herba vel suffrutex, 1.2–1.5 m. altus; caules quadrangulares, superne strigillosi, inferne glabrescentes; lamina foliorum ovata vel oblonga, maxima ca. 20 cm. longa et 9 cm. lata, inconspicue denticulata, apice breviter acuminata, basi rotundata, supra glabrata, subtus strigillosa, nervis secundariis 11–15; petiolus usque ad 9.5 cm. longus, strigillosus; pedunculus communis elongatus, usque ad 16 cm. longus, glabratus, pedicellos corymbosos graciles usque 2 cm. longos gerens; calyx ca. 4.5 mm. longus, lobis fere ad medium connatis, ovatis, glabris,

ciliolatis, nervo mediano incrassato in mucronem excurrente; corolla rubra vel lutea, 13-16 mm. longa, ecalcarata, basi non saccata, glabra, membranacea, tubo vix ventricoso, lobis ovalibus, inaequalibus, rotundatis, fauce parce pubescentibus; filamenta glabra, tubum corollae aequantia; antherae connatae; ovarium conicum, glabrum; stylus glaber; discus annularis, integer, glaber; bacca minute tuberculata, ca. 7 mm. diametro.

Type in the U. S. National Herbarium, no. 1,344,026, collected in humid forest, Ocumaré Valley, Aragua, Venezuela, Oct. 13, 1927, by H. Pittier (no. 12562).

Additional Venezuelan specimens examined:

Type locality, *Pittier* 12563 (W, Y); Colonia Tovar, *Fendler* 2365 (G); without locality, *Linden* 1403 (K).

The present species is obviously related to *B. mucronata* Hanst., which differs in its oblanceolate, lanceolate, or narrowly elliptic leaves, with attenuate bases and fewer (6 or 7) secondary nerves.

8. *Besleria mucronata* Hanst. *Linnaea* 34: 330. 1865.

The type (not seen) was collected at Caracas, Venezuela, by Gollmer.

Venezuelan specimens examined:

FEDERAL DISTRICT: Upper Catuche wood near Caracas, *Pittier* 7158 (W); 9584 (Y); Petaquire, *Fendler* 787 (G, K, Y); Caracas, *Berschel* (K); Hacienda Puerto La Cruz, *Pittier* 8071 (W).

ARAGUA: Near Colonia Tovar, *Fendler* 2606 (K). Without locality, *Eggers* 13221 (Co).

DUBIOUS SPECIES.

BESLERIA LABIOSA Hanst. *Linnaea* 34 : 324. 1865.

I have seen no material which could be referred to this species. Hanstein creates for it the section *Rhynchobesleria*.